Remarks:

Reconsideration of this application in view of the above-identified amendments and following remarks is respectfully requested. Claims 15-21, 23-25, and 28 are currently pending. Claims 1-14, 22, 26, 27 and 29 have been cancelled. Claims 15-21, 23-25, and 28 stand rejected for the reasons of record. For purposes of clarity, Applicant addresses each of the Examiner's concerns in the order set forth in the previous Office Action.

Claim 26 has been rejected under 35 U.S.C. § 112, first paragraph, for failing to comply with both the written description and enablement requirements set forth therein. In order to obviate these rejections, Application has elected to cancel claim 26. Accordingly, Applicant respectfully requests that these grounds of rejection be withdrawn.

Claims 12, 14-21, 24, 25 and 28 have been rejected under 35 U.S.C. § 103(a) as being obvious for the reasons previously made of record by the Examiner. In order to obviate these rejections with respect to claims 12 and 14, Applicant has elected to cancel claims 12 and 14; and, therefore, respectfully requests that these rejections be withdrawn with respect to those claims. Applicant believes that the remaining claims 15-21, 24, 25 and 28 are patentably distinguishable over the prior art of record for the reasons set forth later on in this response.

Claims 2, 5-7, 9-11 and 13 have been rejected under 35 U.S.C. § 103(a) as being obvious in view of Kumar et al. (U.S. Patent No. 5,684,055) in combination with Grancio et al. (U.S. Patent No. 4,386,188) and Rubens et al. (U.S. Patent No. 4,693,856) and Lake (U.S. Patent No. 4,304,747) for the reasons previously made of record by the Examiner. In order to obviate these rejections, Application has elected to cancel claim 2, 5-7, 9-11 and 13. Accordingly, Applicant respectfully requests that these grounds of rejection be withdrawn.

Claims 3, 8 and 23 have been rejected under 35 U.S.C. § 103(a) as being obvious in view of Kumar et al. (U.S. Patent No. 5,684,055) in combination with Grancio et al. (U.S. Patent No. 4,386,188) and Rubens et al. (U.S. Patent No. 4,693,856) and Lake (U.S. Patent No. 4,304,747) and Kumar (U.S. Patent No. 5,223,545). In order to obviate these rejections with respect to claims 3 and 8, Applicant has elected to cancel claims 3

and 8; and, therefore, respectfully requests that these rejections be withdrawn with respect to those claims. Applicant believes that the remaining claim 23 is patentably distinguishable over the prior art or record for the reasons set forth later on in this response. Moreover, Applicant respectfully notes that claim 23 depends on independent claim 15, which claim had been rejected – but for different reasons.

With respect to currently pending claims 15-21, 23-25, and 28, Applicant reiterates that these claims were previously rejected under 35 U.S.C. § 103(a) as being obvious for the reasons previously made of record by the Examiner. More specifically, the Examiner in the previous Office Action dated October 27, 2006, had taken the following position:

> Kumar et al. disclose or suggest the basic claimed process for making a shaped article of manufacture from a sheet or roll of a thermoplastic material including (1) pressurizing the sheet or roll of the thermoplastic material with a plasticizing gas (it is submitted that the pressurizing gas of Kumar et al. inherently has the plasticizing effect) under a selected pressure and period of time to yield a reversibly plasticized thermoplastic material, the thermoplastic material being impregnated with the plasticizing gas, (2) depressurizing the plasticized thermoplastic material to thereby desorb some of the gas from the plasticized thermoplastic material, and (3) forming the plasticized thermoplastic material into the shaped article of manufacture.

Office Action dated October 27, 2006, at spanning paragraph, pages 3-4.

In view of U.S. Patent No. 5,684,055 to Kumar et al., the Examiner went on to erroneously conclude that:

> Kumar et al. at least suggest that the step of forming occurs before the impregnated plasticizing gas falls below about 0.5% by weight of the plasticized thermoplastic material by reporting at column 6, lines 1 and 2 that even the finished article's specific gravity is 0.3 versus 1.3 for solid PET.

Office Action dated October 27, 2006, page 4, lines 7-11. (*emphasis added*).

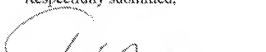
The Examiner's reasoning is erroneous because (1) the reporting in Kumar et al. about the specific gravity value of foamed PET, value = 0.3, versus that of solid unfoamed PET, value = 1.3 (as set forth in Example 1), does not in any way imply that the step of forming [of the presently claimed invention] must occur before the

plasticizing gas concentration [impregnated within the polymer] falls below about 0.5% by weight, and (2) Kumar et al. does not disclose anything about forming a polymeric sheet, foamed or unfoamed, into a shaped article of manufacture. Both of these assertions are supported by way of an accompanying 37 C.F.R. § 1.132 Declaration executed by Vipin Kumar (one of the principal inventors of the subject matter disclosed and claimed in U.S. Patent No. 5,684,055).

In view of the foregoing, it is respectfully submitted that the Examiner has failed to establish a *prima facie* case of obviousness because none of the prior art references of record, either alone or in combination, teach or suggests the presently claimed method, especially with respect to the claim limitations that recite that the step of forming the plasticized thermoplastic material into the shaped article of manufacture occurs before the impregnated gas concentrations falls below about 0.5 percent by weight of the plasticized thermoplastic material. Accordingly, Applicant respectfully request that these grounds of rejection be withdrawn.

In view of the above remarks and claim amendments allowance of claims 15-21, 23-25, and 28 is earnestly solicited. A good faith effort has been made to place this application in condition for allowance. If any further matter requires attention prior to allowance, the Examiner is respectfully requested to contact the undersigned attorney at (206) 568-3100 to resolve the same.

Respectfully submitted,



Thomas E. Loop
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DECLARATION OF VIPIN KUMAR

1. I, Vipin Kumar, am an associate professor at the University of Washington's Department of Mechanical Engineering, and am currently instructing a graduate level research program that focuses on, among other things, microcellular foams and related composite materials.

2. I am also one of the principal inventors of the subject matter disclosed and claimed in U.S. Patent No. 5,684,055 entitled "Semi-Continuous Production of Solid State Polymeric Foams," which patent issued on November 4, 1997.

3. At the request of MicroGreen, Inc., in my capacity as an expert in the field of microcellular foam technology, I have reviewed the subject matter disclosed and claimed in U.S. Application No. 10/557,758 entitled "Manufacture of Fully Recycable Foamed Polymer from Recycled Material".

4. Based on my review, I conclude that (1) the reporting in my earlier patent (i.e., U.S. Patent No. 5,684,055) about the specific gravity value of foamed PET, value = 0.3, versus that of solid unfoamed PET, value = 1.3 (as set forth in Example 1), does not in any way imply that the step of forming [of the presently claimed invention] must occur before the plasticizing gas concentration [impregnated within the polymer] falls below about 0.5% by weight as is recited in the claims of U.S. Application No. 10/557,758, and (2) my earlier patent (i.e., U.S. Patent No. 5,684,055) does not disclose anything about later forming a polymeric sheet, foamed or unfoamed, into a shaped article of manufacture.

5. The subject matter disclosed and claimed in my earlier U.S. Patent No. 5,684,055 is directed to an effective semi-continuous way to make microcellular sheets by use of a gas channeling means; it does not disclose anything about how a plasticized thermoplastic sheet may be later formed or thermoformed into a shaped article of manufacture.

6. I swear that I believe the above statements to be true, correct and accurate.

Respectfully submitted,

Vipin Kumar, PhD

7/4/07
Date